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JAPANESE PATENT OFFICE

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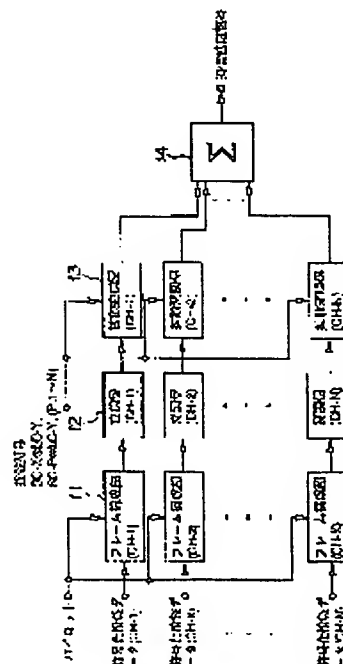
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(54) DS-CDMA TRANSMISSION METHOD

(57)Abstract:

**PROBLEM TO BE SOLVED:** To improve channel estimation accuracy by a pilot symbol by making spread codes for spreading the pilot symbol in plural code channels be in common among the respective code channels.

**SOLUTION:** In respective frame constitution parts 11, the pilot symbol of channel estimation for synchronization detection is inserted at a fixed cycle to the encoding information data of the respective code channels and then, data are modulated in a modulator 12. The modulation data symbols of the respective code channels from the respective modulators 12 are spread by a prescribed spread code in a spread modulator 13. Then, the spread signals of the respective code channels are added in an adder 14 and transmitted. The pilot symbols of the respective code channels are spread by one of the orthogonal spread code group of one information symbol cycle intrinsic to the respective code channels or the spread code other than the spread code allocated to the information symbols of the respective code channels in the orthogonal spread code group of one information symbol cycle.



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